

## CYBERSECURITY ACROSS DISCIPLINES: AUTOMOTIVE SECURITY AND CAR HACKING

Community college faculty from both cyber and other fields, including Aerospace, Automotive, Marine and Geospatial Technologies and associated areas related to Autonomous Technologies (i.e. Automation, Manufacturing, etc.).

**NO Cyber or IT Background/Experience is required to participate in this workshop.** It is designed to explore the impact of Cyber across the autonomous technologies technician workforce. Other university faculty and industry professionals are welcome to participate but may not be eligible for stipends supported by the NSF ATE Program.

### ABOUT THE WORKSHOP

Most modern vehicles connect to devices around them through Vehicle to Everything (V2X) technologies. As vehicles advance with more autonomous capabilities, digital systems, and automation, their attack surface increases exponentially, making them increasingly vulnerable to cyber attacks.

Automobile hacking is a fascinating area of penetration testing and hacking. This workshop will expand faculty knowledge and the ability to incorporate new cybersecurity content in existing classes. **Attendees will need to bring a laptop.**

\* A travel stipend ranging from \$250 to \$1,500 is available to eligible faculty traveling from outside the area of the event (greater than 60 miles) to assist with transportation costs. **Visit workshop registration page for details.**

REGISTER FOR WORKSHOP:  
<https://tinyurl.com/CyAuHa>



May 8, 2023 • 9AM - 4PM MDT

In-Person at the Xponential Conference\*  
Colorado Convention Center  
700 14th St, Denver, CO 80202

\* To attend the workshop, you must also register to attend the conference.

\* NCAT will provide additional instructions for no-cost registration to eligible participants to attend the full Xponential 2023 event prior to the workshop. Eligible participants include faculty currently teach credit courses (full-time or adjunct) at a regionally accredited U.S. community or technical college. **For questions, reach out to NCAT directly at [NCAT@northlandcollege.edu](mailto:NCAT@northlandcollege.edu)**

### WORKSHOP OBJECTIVES

- Describe the common vulnerabilities associated with vehicles and autonomous systems
- Describe potential impacts of vulnerabilities associated with vehicles and autonomous systems
- Describe the communication media used to control vehicles and autonomous systems
- Demonstrate the use of vehicles and autonomous vehicle control applications and simulators
- Demonstrate attacking vehicles and autonomous systems
- Identify types of security measures that work best in automated systems

